



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,148	07/07/2003	Peter Weinhold	4541	8214
21553	7590	10/19/2005	EXAMINER	
FASSE PATENT ATTORNEYS, P.A.			SAN MARTIN, EDGARDO	
P.O. BOX 726			ART UNIT	
HAMPDEN, ME 04444-0726			PAPER NUMBER	
			2837	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,148

Applicant(s)

WEINHOLD ET AL. 

Examiner

Edgardo San Martin

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-16,18-21,23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-16,18-21,23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 21 is objected to because of the following informalities:
 - The Examiner considers that the phase "for and in connection with" does not make a coherent sense with the rest of the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3 – 16, 18 – 21, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Floyd, Jr. (US 1,818,469) in view of Ross (US 2,076,827).

With respect to claim 1, Floyd, Jr. teaches a muffler for internal combustion engines (Fig.1), having a housing through which a flow medium flows and which has at least one housing chamber, and in which deflecting elements (Fig.1, Item 17) serving to make the flow medium swirl are arranged one behind another along a main axis of the housing and in a positionally fixed manner at a distance from one another, wherein an originally disk-shaped body having slots is provided as deflecting element and extends over the clear cross section of the housing, and wherein guiding elements which bound the slots are in the manner of guide vanes and belong to adjacent disk-shaped bodies

(Fig.1; Page 1, Line 30 – Page 2, Line 28), but fails to disclose the guiding elements deflecting the flow in different directions with respect to the main axis of the housing.

On the other hand, Ross teaches a muffler comprising guide vanes (Fig.2, Item 14) wherein each one of the guide vanes has a free leading edge along one of the slots and free trailing edge along another of the slots (Fig.2), wherein each one of the slots is respectively formed and bound between the trailing edge of one of the guide vanes and the leading edge of a next adjacent one of the guide vanes of a respective one of the deflecting elements, and wherein the respective sets of guide vanes of successive adjacent ones of the deflecting elements along the main axis of the housing are respectively alternately oppositely angled at opposite pitch angles so as to deflect the flow of the gaseous medium respectively alternately in opposite swirl directions about the main axis of the housing respectively in successive portions of the housing chamber respectively between successive ones of the deflecting elements (Fig.1; Col.1, Line 51 – Col.3, Line 9).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Ross guide vanes configuration with the Floyd, Jr. design because sound silencing could be obtained with no back pressure, without considerably affecting the efficiency of the engine.

With respect to claims 3 – 5, 8 – 11, 14, 16 and 20, the Examiner considers that Floyd, Jr. and Ford teach the limitations described in the claims (Floyd, Jr.; Figs.1 – 3, Items 17 and 26; and Ford; Figs.1 and 2).

With respect to claims 6 and 7, Ross teaches wherein radially outer ends of the guiding elements, which are arranged at a distance from the main axis of the housing are more sharply angled than radially inner ends of the guiding elements which are situated near the main axis of the housing (Fig.1).

With respect to claims 12, 13, 15 and 19, the Examiner considers that Floyd, Jr. teaches the limitations described in the claims (Figs.1 - 3, Items 16, 17 and 26).

With respect to claim 18, Ross teaches wherein the pitch angle of successive ones of the deflecting elements which are inclined in opposite directions have the same absolute angular value (Fig.1).

With respect to claim 21, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

With respect to claims 23 and 24, the Examiner considers that Ross teaches the limitations described in the claims (Figs.1 and 2).

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers that the obvious combination of Floyd, Jr. and Ross teach the claimed subject matter, as discussed above.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

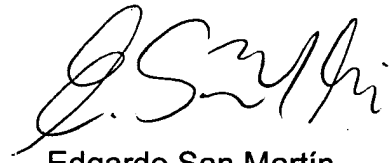
Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2837

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "E. San Martín".

Edgardo San Martín
Primary Examiner
Art Unit 2837
Class 181
October 14, 2005